ART. XX.—*The Physiology and Pathology of the Mind.* By HENRY MAUDSLEY, M. D., London, Physician to the West London Hospital, Honorary Member of the Medico-Psychological Society of Paris; formerly Resident Physician of the Manchester Royal Lunatic Hospital, &c. New York: D. Appleton & Co., 1867.

THIS is a clever book; the author is a man of considerable talent, and an original thinker, but his thinking is far from being always judicious and safe. While he seems to demand rigid proof for all that he believes, he is really over-fond of speculation, is exceedingly attached to his own notions, and relies altogether too much on analogies, some of which have more of plausibility than strict truth. While he is very sceptical in regard to evidences advanced by those of opposite views, there is no hesitancy of belief in what may be marshalled in favour of his own doctrines. There is with this sometimes a sneer at prevalent opinions which is not at all becoming in a man of science.

From some notices that we have read of this book, we see that the expectation is indulged by some that it will make a complete overturn in the mode of studying mind; and we think, from some expressions here and there, that the author has this expectation also. He claims that the psychologists and metaphysicians, from Plato downward, have all gone wrong, and thinks that his method is the true one, and will set everything right. He casts great contempt upon metaphysics, as commonly pursued. He says of it that it "has never made any advance, but has only appeared in new garb;" that "its ill-defined terms and vague traditions, injuriously affecting our perceptions, and overruling our understanding, do not fail to confuse and falsify inferences;" and that "the results have answered to the absurdity of the method—for, after being in fashion for more than two thousand years, nothing has been established by it."

In his horror of this method, Dr. Maudsley ascribes certain bad results to it, for which plain common sense would readily find other causes; but a philosophy, so called, which is becoming somewhat prevalent just now, often discards common sense, and in its aim after the occult in its generalizations, utters mere absurdities. To this "metaphysical method, which exalted man so much over the rest of nature," he attributes "the superstitious reverence of the Greek, who would put to death a victorious general because he had left his dead unburied on the field of battle;" and he says that this "must have prevented Aristotle from anatomical examination of the structure of the human body." And he goes on to say:—

> "Can we wonder, then, that the erroneous method was triumphant in Greece in the fourth century before Christ, when it is only recently in England, in the nineteenth century after Christ, that the barbarian's reverence for a dead body has permitted anatomical dissection, and when the finger-bone of a saint, or a rag of his clothing, is still treasured up, in some parts of the world, as a most precious relic, endued with miraculous virtues!"

What is Dr. Maudsley's remedy for all these evils? Why, simply a method of investigating mind which will not "exalt man so much over the rest of nature," but will bring him down to a proper level by recognizing mind as the mere product of material organization. This is to relieve man alike from his superstitious regard for relics and his reluctance to have the body, after death, serve the purposes of anatomical and medical science. He is quite encouraged by the indications that there is a preparation going on for the adoption of his method. He sees these in two facts. The first is, "the little favour in which metaphysics is held," it being "cultivated as a science only by those whose particular business it is to do so—who are engaged not in action, wherein the true balance of life is maintained, but in descanting in professorial chairs; or if by any others, by the ambitious youth who goes through an attack of metaphysics as a child goes through an attack of measles, getting happily an immunity from a similar affection for the rest of his life; or, lastly, by the untrained and immature intellects of those metaphysical dabblers who continue youths for life." The other fact is, the present great fondness for biography, for this "regards man as a concrete being," and "is in fact the application of positive science to human life." He concludes his remarks on this by saying:—

> "No marvel, then, that biography forms so large a part of the literature of the day, and that novels, its more or less faithful mirrors, are in so great request. The instincts of mankind are here, as heretofore, in advance of systematic knowledge or method."

He makes the broad claim that both theology and jurisprudence have their beginning and basis in physiology or the study of the material organization. His language is:—

> "When the theologist who occupies himself with the supersensuous, has said all that he has to say from his point of view; when the jurist, who represents those principles which the wisdom of society has established, has in turn exhaustively argued from his point of view, then the ultimate appeal, in a concrete case, must be to the physician, who deals with the bodily life. Through his ground only can the theologist and jurist pass to their departments; and they must accept their knowledge of it from him—on the foundation of facts which the faithful investigation of the bodily nature lays, must rest, if they are to rest safely, their systems."

But he justly fears that this will not be speedily acknowledged, and he therefore says:—

> "Certainly it is not probable that this most desirable and inevitable result will come to pass in this day or generation; for it is not unknown how slowly the light of knowledge penetrates the thick fogs of ignorance, nor how furiously irritated prejudice opposes the gentle advent of truth."

But Dr. Maudsley takes courage by looking into the future, for he adds: "Happily it is *certain*, that in the mortality of man is the salvation of truth"—which we suppose means, that he expects, when the old advocates of present prevalent opinions have departed, his peculiar views will surely be adopted by those who are now preparing to take their places, but who are not as yet firmly settled in their opinions.

In concluding his first chapter, Dr. Maudsley goes into quite a rhapsody over "the gifted man of genius, who can often anticipate the slow results of systematic investigation, and who strikes out new paths," as distinguished from "the common herd of mortals who must plod on with patient humility in the old tracks."

He has much to say in disparagement of the "man of observation"—the *fact-hunter*, as he has sometimes been called—and looks upon him as a poor unreasoning mortal ever condemned to the narrowness of investigating "scattered facts." While "the rank and file of mankind" are thus occupied, however, their labours do not end in themselves, but they contribute to an occasional grand result, for by them "a condition of evolution is reached at which the genius starts forth." This agency of the mass in the production of the geniuses that now and then appear seems to be very gratifying to our author, but he does not think it is so to the mass itself—"the rank and file" of diligent labourers are disposed to grumble about this grand combined result of their work.

> "Not unamusing," says he, "though somewhat saddening, is it to witness the painful surprise of the man of observation, his jealous indignation and clamorous outcry, when the result at which he and his fellow-labourers have been so patiently, though blindly, working—when the genius-product of the century which he has helped to create starts into life—when the metamorphosis is completed; amusing, because the patient worker is supremely astonished at a result which, though preparing, he nowise foresaw; saddening, because individually he is annihilated, and all the toil in which he spent his strength is swallowed up in the product which, gathering up the different lines of investigation and thought, and giving to them a unity of development, now by exigenesis ensues."

We apprehend that the men of genius who have really accomplished much in the world have done a great deal at the patient, minute observation which Dr. Maudsley so greatly disparages as being fit only for "the rank and file," wherewith they make stepping-stones from which the geniuses can start forth on their airy flights. Such men of genius have much to do with "the tardy steps of induction," in common with "the ordinarily endowed mortals" of whom Dr Maudsley speaks, who are governed, he says, by "rules and systems," while the genius "has an unconscious system of his own." It is not all flying and leaping with them, as many suppose. They do much hard work, and minute work too, though the world may know but little about it, as they see only their leaps and flights. Newton's discovery of gravitation seems to a gaping world like an impromptu flight to the stars, but a great deal of mental work did it cost him—aye, in the way of minute, careful observation—to prepare him for that flight.

We have no very exalted idea of the power or the usefulness of a genius that spends its efforts in ingenious speculation, in place of downright, honest, hard-working observation, weaving facts and suppositions together, and calling them theories. This Dr. Maudsley has done to a great extent in his book, and we deem it to be not merely a loss, a needless waste of power, but a real perversion, injuring both himself and those who may be deceived by his brilliant plausibilities.

We have no objection to supposition. We would not have the mind shut up to rigid facts. But we do object to calling conjectures facts, or to mingling them together confusedly, as is done in most of the so-called theories of the world. We would have all investigators in every department imitate the noble example of Newton, whose grand motto was, "I shall not mingle conjectures with certainties." *There is a sacredness in facts*, especially in general facts or established principles, and it is a real profanation to mingle our suppositions with them as if they were of the same value. The certainties should be kept with a sacred scrupulousness separate from conjectures, as was done by Newton, and the conjectures or suppositions should be strictly confined to their legitimate use as means of discovering further certainties. Facts should be considered as the treasures of science, to be carefully garnered and kept, but suppositions should be excluded from the storehouse.

There is more in common between ordinary labourers in science and those who attain eminence as discoverers than our author would have us believe. There is no such definite line between them as he draws. They have much the same spirit and aims, and rejoice in each other's successes; and it is only a few out of the "rank and file" who narrow their observation down to "scattered facts," and so cannot appreciate the generalizations of observers of greater reach of mind. To attribute this narrowness, as Dr. Maudsley does, to the great mass of observers, is a gross slander.

With this general disparagement of ordinary thinkers and observers by our author there is a disposition to speak contemptuously of those who hold prevalent opinions that are in opposition to the new opinions which he advances. They are set down as being in the "thick fogs of ignorance" and as the subjects of a "furiously irritated prejudice" in their opposition to what he calls "the gentle advent of new truth." Such unwarrantable language has been quite common of late with writers of the class to which Dr. Maudsley may be said to belong. Thus Professor Huxley, in his *Man's Place in Nature*, speaks of those who believe certain generally accepted doctrines to be established truths as disposed "to smother the investigating spirit under the feather-bed of respected and respectable tradition." And he adds, "but in every age one or two restless spirits, blessed with that constructive genius which can only build on a secure foundation, or cursed with the mere spirit of skepticism, are unable to follow in the well-worn and comfortable track of their forefathers and contemporaries, and, unmindful of thorns and stumbling-blocks, strike out into paths of their own." The restless spirits of Huxley and the rare geniuses of Maudsley are the same. They are minds that are not content to walk in well-worn tracks, or "wait for the tardy steps of induction," but with boldness and haste must strike out new paths, whether they lead to truth or not—paths that are deemed to be good simply because they are not "well worn" by the feet of those whom Maudsley calls "ordinarily endowed mortals." For ourselves, we see no great virtue or profit in forsaking old paths merely because they are "well worn," or in encountering "thorns and stumbling-blocks" to make new paths simply for the sake of having new ones. What we want is the truth, and it matters little whether the paths that lead to it be new or old, rough or well worn.

We recommend to these writers, to say nothing of modesty, the practice of a common courtesy at least towards those who differ from them. A sneer at old opinions furnishes no stable foundation for those that are new.

So much for the spirit of our author, and we now pass to the exposition and examination of his doctrines.

Let us inquire at the outset what are our means of learning all that can be known of mind. The sources of this knowledge are two. *First*, the study of mental phenomena in our own minds by consciousness and in the minds of others by observation. This study evolves the principles of psychology. *Second*, the examination of the mutual relations and influences of mind and the physical organization. Here we have mental physiology. The first is our chief source, but the second is indispensable in the exploration of many mental operations; and the two are to be made use of very largely together.

Dr. M. especially disparages consciousness as a source of evidence, and gives some singular reasons for this. One of them is that it is held that as the veracity of consciousness is to be relied upon only under certain rules, and as the lunatic has as decided a consciousness as the philosopher, and has his rules of judging by it, which rules must be of course wrong, therefore the rules of the philosopher must be wrong also. That this is a fair statement of his reasoning the reader may verify by turning to page 11 of the book. It is about as rational as it would be to say that because an organ is sometimes deranged in its function there are no principles to be ascertained in regard to the performance of its healthy function—that because vision, for example, is sometimes perverted by disease it is useless to make out any laws or rules of vision.

That it may be seen that we do not in the least misrepresent our author we will quote a passage which absolutely rejects all evidence from self-consciousness or from the observation of the minds of others. "Mind, viewed in its scientific sense as a natural force, cannot be observed and handled and dealt with as a palpable object; like electricity, or gravity, or any other of the natural forces, it is appreciable only in the changes of matter, which are the conditions of its manifestation." Observe the strong expression "*appreciable only in the changes of matter.*" Now what are the changes which give us our only knowledge of mind? He goes on to tell us, "Chemical analysis," he says, "of the so-called extractives of nerve testifies to definite change or waste through functional activity; for there are found as products of a retrograde metamorphosis, lactic acid, kreatin, uric acid, probably also hypoxanthin, and, representing the fatty acids, formic and acetic acids." He also speaks in the same connection of the increase of phosphates in the urine after prolonged mental exercise.

Is it indeed so? Are these changes all that can make mind "appreciable" to us? Are we narrowed up to this? Can we really know anything of mind if we look at these "conditions of its manifestation" alone? Is it thus that Dr. Maudsley studies the minds of his patients in the asylum? Would he have us satisfied with noting the lactic acid, kreatin, &c., as the products of metamorphosis of nerve tissue in mental action, and is this the amount of his so-called physiological observation of mind?

In investigating mind, in order to get at all that is "appreciable," we must notice the whole range of the effects of "the marvellous energy which cannot be grasped and handled," just as we do in the case of electricity. We are not to occupy ourselves alone with the material changes that occur in the brain in the production of thought, any more than we are in investigating galvanism or common electricity to look only at the changes in the apparatus that produces it. And while the effects are observed we are to inquire into all the elements that are concerned in producing them. There may be more in one case than in another. We have no right to conclude that because mind is like electricity in that it cannot be observed and handled and dealt with as a palpable object, that it is like it in other things—that, for example, "it is appreciable only in the changes of matter which are the conditions of its manifestation." Its effects and some of the modes of its manifestation may prove that something more than changes of matter in the brain is to be invoked to account for them. This analogy, which our author has thus sought to make out between mind and electricity, is one of the many false analogies which throng in his book.

There is one passage in the statement on which we have been commenting, to which we call particular attention, not only because it is a most explicit expression of the author's gross materialism, but also because there is in it acknowledged truth so connected with error as to make the error have a plausibility which it otherwise would not have. We do not say that this was designed, but such is the effect. The passage is this:—

> "Few will now be found to deny that with each display of mental power there are correlative changes in the material substratum; that every phenomenon of mind is the result, as manifest energy, of some change, molecular, chemical, or vital, in the nervous elements of the brain."

In the first part of this sentence there is a proposition to which no one will object, for every physiologist believes that every mental action is attended by or has a relation to a change of some kind in the material organization; but the latter part, though it is so worded as to seem to be a mere paraphrase of the first part, really contains a new proposition. The correlative change is simply stated in the first part; but in the latter part the mental act is said to be "the result" of this change. Fairness demands that they should be plainly stated as two distinct propositions—the one as a truth which all believe, and the other as an opinion which the author entertains in opposition to the views of most physiologists—it touches in fact the very point on which materialists differ from others, and should have been so stated explicitly by our author.

Let us see definitely what this difference of opinion is. The doctrine generally taught by physiologists is well expressed by Dalton, thus:—

> "When we say that the hemispheres are the seat of the intellectual faculties, of memory, reason, judgment, and the like, we do not mean that these faculties are, strictly speaking, located in the substance of the hemispheres, or that they belong directly to the matter of which the hemispheres are composed. The hemispherical ganglia are simply the instruments through which the intellectual powers manifest themselves, and which are accordingly necessary to their operation. If these instruments be imperfect in structure, or be damaged in any manner by violence or disease, the manifestations of intelligence are affected in a corresponding degree."

He believes of course that there is a spiritual entity in man, a conscious, responsible *ego*, that thinks and acts by means of the brain. So also Dr. Draper considers it the duty of the physiologist, "whenever the opportunity offers, to assert and to uphold the doctrine of the oneness, the immortality, the accountability of the soul," and he says that "as there is but one God in the universe, so there is but one spirit in man."

Our author and other materialists believe directly the opposite of all this.

> "Instead of mind being," says Maudsley, "as assumed, a wondrous entity, the independent source of power and self-sufficient cause of causes, an honest observer proves incontestably that it is the most dependent of all the natural forces."

A word in passing upon the overstatement, amounting to caricature, of the prevalent opinions on this subject as expressed by Draper and Dalton. No one holds that the mind is "the independent source of power and self-sufficient cause of causes." It is believed by all physiologists that there is in the mind a certain degree and mode of dependence upon the physical organization, and Dr. Maudsley knows it. Why then should he misstate this belief, as he does persistently in this book? The difference between his doctrine and that which is commonly received is that he teaches that the dependence is entire, mind not being in any sense an entity, but a mere "*result*" of some change "in the nervous elements of the brain." With Maudsley mental action is nothing but cell-action—not action of mind in and by cells, but action of the cells themselves.

> "Mental action," he says, "is as surely dependent on the nervous structure as the function of the liver confessedly is on the hepatic structure: that is the fundamental principle upon which the fabric of a mental science must rest."

There is no mistake about the meaning here. If there were any doubt about it from the use of the word surely instead of absolutely, the context shows that he considers the dependence absolute. He says that the cells of the brain have a like function with "the ganglionic nerve cells scattered through the tissues of the organs." In a mental action we therefore see nothing but the performance of the function of cells. And the mental power of the cells is maintained by what they receive from the blood to maintain the waste occasioned by their action. In this way there is an "upward transformation of matter," or, in other words, a change of the blood by assimilation in the cells into a higher form of matter—such as can produce mental phenomena. With this transformation of matter there is "a correlative metamorphosis of force"—a new force being produced solely by the material change. Observe that our author makes the condition of thought to be absolutely physical, for he holds that "the maintenance of the equilibrium of nervous element"—by which he means the maintenance of the proper nutrition of the cells of the brain to supply the waste of their action—

> "is the condition of latent thought—it is mind statical; the manifestation of thought implies the change or destruction of nervous element. The nerve-cell of the brain, it might in fact be said, represents statical thought, while thought represents dynamical nerve-cell, or, more properly, the energy of nerve-cell."

There is another thing stated in regard to this building up of thought-power in the cells by assimilation. Whenever there is waste of a cell in consequence of "the activity of an idea" the repair of the cell from the blood is "according to the mould or pattern of the particular idea." Whether he means that a single cell may evolve different ideas, and so needs a different kind of repair after each, or that each cell evolves its own particular idea, being especially moulded for it, we will not undertake to decide.

There is another thing in regard to this generation of thought which is very wonderful. It is the making of ideas out of sensations. It is done in this way: There are nervous centres for sensory perception, and other nervous centres, viz., the hemispheres of the brain, for ideational perception. Now "the impressions received by the sensory centres" may be passed "to the cells which are spread over the hemispheres, and there further fashioned into what are called *ideas* or *conceptions*." In other words, the cells in the hemispheres are moulds into which these impressions are cast, and they come out *ideas*. Thus "the formation of an idea is an organic evolution." The author thus speaks in another place more particularly of this moulding process, giving the cells, as you observe, a selecting power:—

> "The cells of the cerebral ganglia do in reality *idealize* the sensory perceptions; grasping that which is essential in them, and suppressing or rejecting the unessential, they mould them by their plastic faculty into organic unity of an *idea*."

The difference in quality of the ideas of different persons we suppose is owing to a difference in the cells that mould them, though Dr. Maudsley says nothing on this point. He remarks in one place that "an idea may be definite, clear, and adequate, or it may be indefinite, obscure, and inadequate"—in the former case we suppose it is the product of a good mould, in the latter not.

Ideas being thus generated, it follows that their association is altogether physical, and Dr. Maudsley speaks of it as the result of the "anatomical connections" of the cells. The communications between two ideas, by which one suggests the other, is by "an anastomosing process" between the cells in which the ideas are moulded. And he says that "ideas are thus as much associated in the mind by physical necessity as are cause and effect in external nature."

But ideas that have been thus moulded in the cells and associated together by the anastomoses between the cells are remembered. How is this accounted for? Simply thus: After an idea has been moulded in a cell, and has been dismissed for the time, there is a something which "persists or is retained," and this "has been differently described as a residuum, or relic, or trace, or vestige, or again as potential, or latent, or dormant idea; and it is on the existence of such residua that memory depends." We remark in passing, that with all the transmitting of impressions, the moulding, the anastomosing, and the deposits of residua, we have a set of processes that are rather more complicated than we should suppose anything so fixed and definite as physical organization could effect. If such be the true account of mental operations we should think that incoherent ideas and confused memories would be even more common than we find them to be. So abundant must be the residua especially in persons of great memories, that the cells must be over-burdened with huddled-up deposits—order would be as impossible as in an old garret. Where there is incoherence either from natural deficiency or insanity, we suppose Dr. Maudsley would account for it by saying that the moulds are poor, the residua are not well packed, and the anastomoses are in a tangle.

But we have not yet arrived at the end of the wondrous powers of these cells. When we think that we have emotions we are mistaken. We as persons do not have emotions. It is all in these same cells. These "have a sensibility of their own to ideas, and the sensibility which thus declares the manner of their affection is what we call emotional." The emotion is absolutely a physical result, for "there are two elements which go to the production of an emotion—namely, the organic element and the external stimulus." That tells the whole story, according to our author. The moulded idea acts on the sensibility of the cell that moulds it, and thus generates the emotion.

And there are emotional affinities in these cells. The appetites and desires are merely such affinities. Where these exist there is in the cells an "attraction, impulse, or striving of organic element towards a favourable stimulus," and "the attraction is no less a physical necessity than the attraction of an acid for an alkali, of the needle to the pole, or of positive for negative electricity."

A very gross and degrading account, this, of our emotional nature! It is instinctively revolting to every one that is not bewildered by the dreams of a false philosophy. What! the noblest and most sacred emotions, love, desires after the pure and good, are these nothing but the products of organized matter! No true science can so degrade the higher nature of man.

With such views of mind everything in both intellect and character is made to depend upon the construction of the cells of the brain.

> "Given," says Maudsley, "an ill-constituted or imperfectly developed brain at the time when the sexual appetite makes its appearance, and what is the result? None other than that which happens with the lower animals, where love is naked lust, and the sight of the female excites a desire that immediately issues in uncontrollable efforts for its gratification. Given, on the other hand, a well constituted and naturally developed brain, the sexual desire undergoes a complex development in consciousness; from its basis are evolved all those delicate, exalted, and beautiful feelings of love that constitute the store of the poet, and play so great a part in human happiness and human sorrow."

Observe that he is not stating an individual exceptional case at all, but he is speaking in general of emotions, appetites, and desires, as they are generated physically, as he holds, in the cells of the brain. There can be no mistake about this, for after giving this illustration, he adds, "What is true of these particular desires is true of all our desires." We simply remark in regard to all this, that it is a matter of common observation that most of the conversion of physical love into "naked lust" comes from direct moral contamination, and in spite of all the good tendencies of "a well constituted and naturally developed brain." If Dr. Maudsley has not so observed, it is because his mind has been addled by his false theories.

In consonance with his other notions, Dr. Maudsley teaches that there is no freedom of will, or, in fact, that there is no such thing as what we commonly call the will. As is generally the case throughout the book, he here overstates the doctrines of those to whom he is opposed. He says, for example, that we must "get rid of the notion of an ideal will, unaffected by physical conditions," as if it were the prevalent doctrine of psychologists that it is wholly and at all times independent of these conditions, and that it is "allowed to tyrannize in the most despotic manner over the understanding." And he says in another place that "not a little windy nonsense has been written concerning its authority," which, to say the least, is not very complimentary to those with whom he differs. The common doctrine is, that the mind considers motives and facts freely in view of them—such consideration and action not being the operations of organic cells, but of a mind that is connected with, and in some sense dependent upon these cells in its action. But our author would have it that the dependence is entire, and that there is no such thing as freedom of the mind in choice and will. He says that the will is simply "the higher mode of energy of the nerve-element," and an "insensibly organized result of varying value." The following language expresses as sheer materialism as possibly could be expressed on this subject.

> "If the final reaction after deliberation, which we call will, is like other modes of reaction of nerve-element previously described, a resultant of a certain molecular change in a definitely constituted nerve-centre, than all the *design* exhibited in any given act of will, must, like the design displayed in the function of the spinal cells, or the cells of the sensory centres, be a physical result of a particular intimate constitution or organization of nervous matter."

According to Dr. Maudsley, there are multitudes of wills in every brain, for he says that "there are in reality as many centres of volitional reaction in the brain as there are centres of idea." And from what has been already stated, there must be according to his theory, at least as many "centres of idea" as there are cells—for if the cells "mould" the ideas, there cannot be more than one cell engaged in moulding any one idea, and it may mould many in succession.

If there be such a multitude of centres of ideas and volitions, it would seem that there could be no such thing as what may be called the *ego*. But it appears that there is one, though exactly what it is we cannot divine, from Dr. Maudsley's definition, probably because we are not sufficiently indoctrinated in the modes of thought and language of his school of thinkers. He says:—

> "What we call the *ego*, is in reality an abstraction, in which are contained the residua of all former feelings, thoughts, volitions—a combination which is continually becoming more and more complex."

What he means by the word abstraction in this connection, we do not know; and we doubt whether our author can tell us. To be consistent with what he has already said, he ought to maintain that the thinking man, or the mind of man, is simply the sum of what he calls "the residua of all former feelings, thoughts, volitions;" and this is not only "a combination which is continually becoming more complex," but as there "are as many centres of volitional action as there are centres of idea," there can be no central power in this combination, and without this there can be nothing which can properly be called the *ego*. And if there be no *ego*, there is no such thing as identity, and therefore Dr. Maudsley rejects the "so-called identity" of the *ego*, and speaks of revolutions and transformations in character as showing that it does not exist, the consciousness of its existence being, in his view, no evidence at all to the contrary. Such doctrines strike at the root of all human responsibility. If there be no *ego*, there is no responsibility—a mass of cells, each producing thoughts, feelings, volitions, is not responsible. And if our author will have it that there is an *ego*, in contradiction of what he has all along taught, then if it have no identity, the *ego* of last year, last month, last week, or yesterday, had no responsibility connected with that of to-day. Nay more, it is even a matter of moments, for in the changes continually occurring in the cells, the sum which makes the *ego* of Dr. Maudsley changes somewhat from moment to moment, and may at some moment encounter one of those great transformations of which he speaks as showing that there is no identity.

Such is the gross materialism of Dr. Maudsley. But perhaps he will claim that we misrepresent him, for there are many passages in his book that are totally inconsistent with his materialistic doctrines; and he calls the famous proposition of Cabanis crude, and criticizes it at some length. He desires, at least, to make out his materialism to be more refined than that of the outspoken Cabanis. We cannot, however, see how his differs essentially, for he says "every phenomenon of mind is the result, as manifest energy, of some change—molecular, chemical, or vital—in the nervous elements of the brain." Did Cabanis mean anything more than this? Did he mean to say that thought is a material fluid like bile? Not at all. He meant merely that thought is a product of the organism of the brain, just as bile is of the organism of the liver; and he would agree with Maudsley's statement as only another version of his doctrine, granting that the change in the organism which produces thought is either "chemical, molecular, or vital."

We have said that Dr. Maudsley's book abounds in analogies, which, though plausible, are fallacies. Here is one of them. In speaking of our arriving at "the general conception, or the, so to speak, *essential idea* of mind, he says:—

> "By observation of the mechanism and appropriate abstraction we get the *essential idea* of the steam-engine—a fundamental idea of it, which, as our ultimate generalization, expresses its very nature as such—contains, as Coleridge would have said, 'the inmost principles of its possibility as a steam-engine.' So likewise with regard to the manifold mental phenomena; by observation of them, and abstraction from the particular, we get the general conception or the *essential idea* of mind."

But he says that in the "confusion in philosophy" which psychological reasoning has introduced, this "metaphysical abstraction has been made into a spiritual entity, and a complete barrier thereby interposed in the way of positive investigation." The analogy is a correct one, if the collective phenomena of mind are the mere products of a conglomeration of cells, as Maudsley teaches, for then it is mere machinery—vital in its character, and exceedingly delicate in structure—and yet machinery that does all the thinking, evolves all the mind-power, that "highest natural force," as our author calls it. But what says an actual observation of the phenomena of mind, made in a common-sense way, without regard to any preconceived theory? Does it reveal to us in mind simply a combination of machinery without any responsible central power? It does not require a philosopher with his abstractions to make the distinction to which we allude. It is made instinctivelv by every one—alike by philosophers like Dr. Maudsley and by those whom he looks down upon as "ordinarily endowed mortals," and even those who have reached the utmost limit of human ignorance and degradation. If either Dr. Maudsley or a Bushman be struck by any one, he does not think of the blow as coming from a part of a machine, but from the man as a thinking, feeling, willing being. He, an *ego*, is attacked by another *ego*. The act is to him that of a real "spiritual entity," not made from "a metaphysical abstraction." There is no such oneness in the "essential idea of a steam-engine" as in that of a person.

We have said that there are many inconsistencies in the book. The author does not strictly adhere to the doctrines which he so minutely carries out. This is partly from carelessness, but partly from the very necessity of the case, for he cannot always escape from the use of common language; the necessity for its use presses upon him, and he gets along as well as he can with it. "The fashioning of the will," says he, in one place, "is the fashioning of the character; and that can be done only indirectly by fashioning the circumstances which determine the manner of its formation. But however formed, it is the character which determines what the judgment shall decide to be most eligible, the inclination prompt as most desirable, and the will effect." There is seldom so much concentrated truth as in these passages, and at the same time it is not to be mistaken. Maudsley forsakes his petty cells, and talks sense.

There are many other parts and points of this author which we had intended to touch upon, but sickness has cut our duties short. W. H.

[There is a sad interest connected with the above review. The sickness of its author, alluded to at its conclusion, speedily terminated the life of our esteemed contributor and valued friend. The concluding sentence was the last the author ever penned. This is not the place to give expression to our grief at the irreparable loss which the profession and the whole community, no less than ourselves, have sustained, or to dwell on the virtues of the deceased, his great abilities and the useful purposes to which he devoted them. Some abler pen, we trust, will perform that duty.—EDITOR.]

ART. XXI.—*Mémoires et Bulletins de la Société Médico-Chirurgicale des Hôpitaux et Hospices de Bordeaux.* Tome 1èr. Royal 8vo. pp. 474. Paris: Victor Masson et Fils. Bordeaux: Chaumas-Gayet, 1866.
Memoirs and Reports of the Medico-Chirurgical Society of the Hospitals and Infirmaries of Bordeaux. Vol. I., 1866.

THIS handsome book contains between forty and fifty papers of a practical nature, contributed by thirty-six members of the society from which the volume has emanated, together with abstracts of the discussions which